What Is Claimed Is:

1. An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide comprising amino acids from about -23 to about 396 in SEQ ID NO:2;

(b) a nucleotide sequence encoding a polypeptide comprising amino acids from about - 22 to about 396 in SEQ ID NO:2;

(c) a nucleotide sequence encoding a polypeptide comprising amino acids from about 1 to about 396 in SEQ ID NO:2;

(d) a nucleotide sequence encoding a polypeptide comprising amino acids from about -24 to about 326 in SEQ ID NO:4;

(e) a nucleotide sequence encoding a polypeptide comprising amino acids from about - 23 to about 326 in SEQ ID NO:4;

(f) a nucleotide sequence encoding a polypeptide comprising amino acids from about 1 to about 326 in SEQ ID NO:4;

(g) a nucleotide sequence encoding a polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit Nos. 97149 or 75698;

(h) a nucleotide sequence encoding the mature VEGF2 polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97149 or 75698; and

(i) a nucleotide sequence complementary to any of the nucleotide sequences in (a), (b), (c), (d), (e), (f), (g), or (h).

2. The nucleic acid molecule of claim 1,wherein said polynucleotide has the nucleotide sequence in SEQ ID NO:1.

3. The nucleic acid molecule of claim 1, wherein said polynucleotide has the nucleotide sequence in SEQ ID NO:3.

4. The nucleic acid molecule of claim 1, wherein said polynucleotide has the nucleotide sequence in SEQ ID NO:1 encoding the VEGF2 polypeptide having the amino acid sequence in SEQ ID NO:2.

5. The nucleic acid molecule of claim 1, wherein said polynucleotide has the nucleotide sequence in SEQ ID NO:3 encoding the VEGF2 polypeptide having the amino acid sequence in SEQ ID NO:4.

6. The nucleic acid molecule of claim 1, wherein said polynucleotide has the nucleotide sequence in SEQ ID NO:1 encoding the mature VEGF2 polypeptide having the amino acid sequence in SEQ ID NO:2.

7. The nucleic acid molecule of claim 1, wherein said polynucleotide has the nucleotide sequence in SEQ ID NO:3 encoding the mature VEGF2 polypeptide having the amino acid sequence in SEQ ID NO:4.

8. The nucleic acid molecule of claim 1, wherein said polynucleotide has the nucleotide sequence of the cDNA clone contained in ATCC Deposit Nos. 97149 or 75698.

9. The nucleic acid molecule of claim 1, wherein said polynucleotide has the nucleotide sequence encoding the VEGF2 polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit Nos. 97149 or 75698.

10. The nucleic acid molecule of claim 1, wherein said polynucleotide has the nucleotide sequence encoding the mature VEGF2 polypeptide having the

amino acid sequence encoded by the cDNA clone contained in ATCC Deposit Nos. 97149 or 75698.

11. An isolated nucleic acid molecule comprising a polynucleotide which hybridizes under stringent hybridization conditions to a polynucleotide having a nucleotide sequence identical to a nucleotide sequence in (a), (b), (c), (d), (e), (f), (g), (h), or (i) of claim 1 wherein said polynucleotide which hybridizes does not hybridize under stringent hybridization conditions to a polynucleotide having a nucleotide sequence consisting of only A residues or of only T residues.

12. A method for making a recombinant vector comprising inserting an isolated nucleic acid molecule of claim 1 into a vector.

13. A recombinant vector produced by the method of claim 12.

14. A method of making a recombinant host cell comprising introducing the recombinant vector of claim 13 into a host cell.

15. A recombinant host cell produced by the method of claim 14.

16. A recombinant method for producing a VEGF2 polypeptide, comprising culturing the recombinant host cell of claim 15 under conditions such that said polypeptide is expressed and recovering said polypeptide.

17. An isolated VEGF2 polypeptide having an amino acid sequence at least 95% identical to a sequence selected from the group consisting of:

(a) amino acids from about -23 to about 396 in SEQ ID NO:2;

(b) amino acids from about - 22 to about 396 in SEQ ID NO:2;

(c) amino acids from about 1 to about 396 in SEQ ID NO:2;

(d) amino acids from about -24 to about 326 in SEQ ID NO:4;

(e) amino acids from about -23 to about 326 in SEQ ID NO:4;

(f) amino acids from about 1 to about 326 in SEQ ID NO:4;

(g) the amino acid sequence of the VEGF2 polypeptide having the amino acid sequence encoded by the cDNA clones contained in ATCC Deposit Nos. 97149 or 75698; and

(h) the amino acid sequence of the mature VEGF2 polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit Nos. 97149 or 75698.

18. The isolated polypeptide of claim 17, which is produced or contained in a recombinant host cell.

19. The isolated polypeptide of claim 18, wherein said recombinant host cell is mammalian.

20. An isolated nucleic acid molecule comprising a polynucleotide encoding a VEGF2 polypeptide wherein, except for at least one conservative amino acid substitution, said polypeptide has a sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide comprising amino acids from about -23 to about 396 in SEQ ID NO:2;

(b) a nucleotide sequence encoding a polypeptide comprising amino acids from about - 22 to about 396 in SEQ ID NO:2;

(c) a nucleotide sequence encoding a polypeptide comprising amino acids from about 1 to about 396 in SEQ ID NO:2;

(d) a nucleotide sequence encoding a polypeptide comprising amino acids from about -24 to about 326 in SEQ ID NO:4;

(e) a nucleotide sequence encoding a polypeptide comprising amino acids from about - 23 to about 326 in SEQ ID NO:4;

(f) a nucleotide sequence encoding a polypeptide comprising amino acids from about 1 to about 326 in SEQ ID NO:4;

(g) a nucleotide sequence encoding a polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit Nos. 97149 or 75698;

(h) a nucleotide sequence encoding the mature VEGF2 polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97149 or 75698; and

(i) a nucleotide sequence complementary to any of the nucleotide sequences in (a), (b), (c), (d), (e), (f), (g), or (h).

21. An isolated VEGF2 polypeptide wherein, except for at least one conservative amino acid substitution, said polypeptide has a sequence selected from the group consisting of:

(a) amino acids from about -23 to about 396 in SEQ ID NO:2;

(b) amino acids from about -22 to about 396 in SEQ ID NO:2;

(c) amino acids from about 1 to about 396 in SEQ ID NO:2;

(d) amino acids from about -24 to about 326 in SEQ ID NO:4;

(e) amino acids from about -23 to about 326 in SEQ ID NO:4;

(f) amino acids from about 1 to about 326 in SEQ ID NO:4;

(g) the amino acid sequence of the VEGF2 polypeptide having the amino acid sequence encoded by the cDNA clones contained in ATCC Deposit Nos. 97149 or 75698; and

(h) the amino acid sequence of the mature VEGF2 polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit Nos. 97149 or 75698.

22. An antibody against the polypeptide of claim 17.

23. A compound effective as an agonist for the polypeptide of claim 17.

24. A compound effective as an antagonist against the polypeptide of claim 17.

25. A pharmaceutical composition comprising the polypeptide of claim 17 and a pharmaceutically acceptable carrier.

26. A method for the treatment of a patient having need of VEGF2 comprising: administering to the patient a therapeutically effective amount of the polypeptide of claim 17.

27. The method of claim 26, wherein said therapeutically effective amount of the polypeptide is administered by providing to the patient DNA encoding said polypeptide and expressing said polypeptide *in vivo*.

28. A method for the treatment of a patient having need of VEGF2 comprising: administering to the patient a therapeutically effective amount of the compound of claim 23.

29. A method for the treatment of a patient having need to inhibit VEGF2 comprising: administering to the patient a therapeutically effective amount of the antagonist of claim 24.

30. A process for diagnosing a disease or a susceptibility to a disease related to expression of the polypeptide of claim 17 comprising:

determining a mutation in the nucleic acid sequence encoding said polypeptide.

31. A diagnostic process comprising:

analyzing for the presence of the polypeptide of claim 17 in a sample derived from a host.

32. A method for identifying compounds which bind to and activate or inhibit a receptor for the polypeptide of claim 17 comprising:

contacting a cell expressing on the surface thereof a receptor for the polypeptide, said receptor being associated with a second component capable of providing a detectable signal in response to the binding of a compound to said receptor, with a compound to be screened under conditions to permit binding to the receptor; and

determining whether the compound binds to and activates or inhibits the receptor by detecting the presence or absence of a signal generated from the interaction of the compound with the receptor.